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EDUCATIONAL REVIEW

EDITED BY WILLIAM McANDREW

Volume XXXI | SATURDAY, JANUARY 11, 1930 | Number 785

JOHN DEWEY'S CONTRIBUTION TO EDUCATIONAL THEORY[1]

By ERNEST C. MOORE

DIRECTOR OF THE UNIVERSITY OF CALIFORNIA AT LOS ANGELES

ANY one who is given to walking about in the United States and looking into schoolroom windows has seen sights recently quite different from those his mother and his father saw. He has seen classrooms equipped like workshops with little children not sitting still all day at desks but going about the room freely at their group undertakings. They are constructing things or experimenting to find out things or conversing with their fellows and assisting them. The teacher is not hearing recitations. She seldom does that; she is passing freely among them, encouraging them in their undertakings. There is no problem of discipline, for every one is at work. This school looks more like a home with many happy children playing together than like a schoolroom of the old sort under a taskmaster's eye. It has the spirit of a home.

Plato has it in one place that a man ought to pay for his nurture to the society which reared him, and that the best form which that payment can take is for him to do something for the education of those who come after him. Some of us believe that no man has ever paid τροφεῖα as generously as Professor Dewey has.

Yet, though this is a glad occasion, a time of rejoicing and deep congratulation, it must be said that the thing which we are doing to-night is a most dangerous thing. Every philosophy has suffered at the hands of its interpreters. Pythagoras was not a Pythagorean, Socrates not a Socratic, and there are those who contend that Christ was not a Christian. Is this philosophy to be the one exception? It is a beneficent arrangement that insures that if we go wrong we shall be set right by the master who put our feet in this way.

The most puzzling problem that I have encountered in this investigation is: why have so few philosophers been philosophers of education? I can think of but five who have been. Their names are impressive. Socrates, Plato, John Locke, Johann Friedrich Herbart and John Dewey. The others we shall say were either not philosophers or not educators. About Socrates, the father of all philosophy, there can be no doubt. He was the examiner of life and was perpetually occupied with human and political virtue.

The "Republic" of Plato may well claim

[1] An address delivered on the occasion of the seventieth birthday celebration of Professor Dewey, on October 18, 1929, in the Horace Mann Auditorium, Teachers College.

to be regarded as the first of secular books. In it the most daring of reformers asks what changes must be made in human attitudes and arrangements before the life of man can become most rich and full. The answer, he says, is written in small letters in the life of each individual and in large letters in the life of the organized state. The story which the letters tell is the same in both places. It is the story of how the citizen-soul must be solicited to grow from birth until it departs to the Islands of the Blessed. Every institution of man's life is brought to bar and is weighed and measured in the light of its effectiveness in serving that one end. Never was so pragmatic a book as this one; never was such a drastic renovation undertaken as Plato there undertakes in the name of education. Shall we let Homer tell the children what he fancies about the gods, or what must we tell them about gods and men if they are to grow up to buy freedom even with the price of death? He is the divine Plato whose thoughts are worthy of God, but those thoughts about God were contributed in the name of the children as teaching material. No wonder Rousseau called this the greatest book on education ever written. It was that until John Dewey wrote his "Democracy and Education."

How did it come about that western philosophy, which was above everything philosophy of education to its great founders, Socrates and Plato, should concern itself after them hardly at all with their chief interest? It may be because Aristotle's discussion of education breaks off in the middle of the eighth book of the Politics and but a fragment of it has come down to us. The trouble with that conjecture is that Aristotle's discussions of other matters are not educational discussions as those of Socrates and Plato were. Aristotle drew the map of intellectual objectives for the world. He contributed the program which thinkers of all sorts followed until the Renaissance and which philosophers with considerable unanimity have continued to follow in spite of the Renaissance. He was the great classifier. Knowledge, he said, is of two kinds, theoretical and practical; and he alone of all the followers of Socrates makes this sharp distinction. Theoretical knowledge is the contemplation of truth, contemplation unmixed with volition. God is perpetually engaged in such contemplation. Whoever would be Godlike must, like Him, engage himself in the contemplation of that which can not be other than it is.

It is said that every man is born either a Platonist or an Aristotelian; either a liberal or a conservative, Mr. Gilbert phrases it; the thought is the same. Every one of us is born either to hunger and thirst after righteousness or to take satisfaction in counting what is already in the bag, in gloating over it, naming, arranging and classifying it, and in playing games of dogmatic defense of its static completeness. As between these two wings of tendency, John Dewey is a Platonist rather than an Aristotelian. For this rather daring judgment I am glad to have the confirmation of Professor Whitehead, given me without prompting in conversation yesterday. He is as much interested in souls as Plato is, and quite a little more confident that they are not of different kinds. He is as much interested in knowledge as the sole means of man's salvation as either Socrates or Plato is. He is as much concerned as Plato in using the best we know as a raft on which to go forward, though he is not at all convinced that the best is the unchanging; but Plato would most likely have talked of the uniformity of nature if he had lived in this day. There is the greatest similarity between these two thinkers in the value they attach to education and the thoroughness with which they serve its claims.

Philosophy since Plato has treated the

struggling life of man with little consideration. It has said: "It is an appearance only; let us think on the unchanging and eternal." Philosophy has taken refuge in a dualism so anti-human that it can not carry out the commandment of God to Socrates, and has slight concern for it. I recall a morning walk with Professor William James in Berkeley but a day or two before he gave that famous address which introduced pragmatism officially to the world. He was fresh from theological battle with Professor Howison and was repeating its thrust and parry with his well-remembered avidity.

"But," said I, mightily impressed by two years' sitting in Professor Dewey's classroom, "Professor Dewey does not often refer to God. He has no such familiar acquaintance with Him as you theological philosophers have."

"If he does not mention God he is no philosopher," said Professor James. Perhaps he was wrong. Is it the most abstract of the ones by which the many is organized that demands the maximum of attention? Does the first commandment wholly set aside the second? May not this be a point of departure, the promiseful beginning of a new era? The more one is absorbed in the contemplation of the ineffable Brahm the less interest can he have in Brahm's creatures. Theosophy annihilates. The Hindu has no concern for social welfare. He cultivates what he is pleased to call the spiritual life, to the accompaniment of, if not by means of, thrasonical disdain for his fellow man.

There is a kind of religion which is opium to those who believe it. It does not say with Edward Everett Hale, "I believe in the divinity of man just as Christ did." And there is a kind of philosophy whose object is the paralysis of the human will. Philosophers of that description have been content from time to time to throw teachers and parents some scraps of their attention, but for the most part these scraps have been so unnutritious as to be manifest evidences of mechanical charity rather than of solicitous regard. The classical philosophy's view of education is that it is a beholding of the universe. Nothing infuriates an orthodox fundamentalist of that school more than to suggest that studies are each of them human instruments devised and taught to enable the young little by little to do the work of the world and by a greater mastery of these human tools to do it better than their fathers did it. He rages against all forms of vocational education and all ideas that seem to partake of it. With a fine disregard for history he declares that liberal education is pure vision. To all innovations which affect his calling and particularly to that most abhorrent of them all—the study of education—he applies the objection which Edward Caird's professor made to all proposals for the increase of scientific teaching in the college, that "it is not consistent with the idea of a university as it exists in the divine mind."

Can intellectualism have a real interest in education? Its process is too confused, its objective too indeterminate, its account of mind too passive and of man too indifferent. But when the conviction that man is a shaper of the world, not a beholder merely, takes firm hold of any one it speedily drives him to that place in the universe where shaping is the order of existence. It makes him more concerned with the supreme art of shaping human powers and fitting them for social activity than with anything else.

This philosophy of education begins, then, with a conviction concerning knowledge. That conviction derives from Francis Lord Bacon, who sounded a new battle-cry in the warfare which humans wage against ignorance. "Knowledge," he said, "is power." What he meant is very simple. Heat applied to a boiler filled with

water generates steam. Water falling from a height upon the flanges of a water-wheel forces the wheel to revolve. Gas ignited by an electric spark in an explosion chamber furnishes power. When Bacon said, "Knowledge is power," he meant that its function is to perform work. But he did not always say that. As a convert he lapsed, he backslid from his own gospel, for he sometimes said things very different from that and quite inconsistent with it. For example, I find him saying: "God hath shaped the mind of man like a glass capable of the image of the universal world . . . for knowledge is a double of that which is." That God has not shaped the mind of man like a looking-glass or a camera will, I think, be sufficiently clear from a single illustration. Suppose the end of the room to be a blackboard. Let us cover it with Arabic numerals. Will you be good enough to look at them now that they have been written? How many of them can you see clearly at any one moment? Not many, and always one figure clearer than all the rest. That is, our seeing is focalized seeing. Our minds work by fixation, by attention. There is always a center to every field of consciousness. Not so with the mirror or the camera. They reflect all that is before them impartially. Human knowledge, then, must be the product of organic selection and rejection.

But there is a further distinction which is important. There are two kinds of knowledge of football: the kind which the folks who sit on the bleachers have—bleacher knowledge—the knowledge of spectators or lookers-on, and the kind which the players have—player's knowledge. The two kinds are not interchangeable. If you take spectators from the bleachers and put them into the field and order them to play, they can not. They do not know what to do next, then after that and after that. Their training as observers does not qualify them as resourceful doers.

It is plain that while the world will get along very well if only a few of us become doers of football it will not get along well if we maintain the spectator attitude in the game of life. Structurally we are not built to be beholders here. The sensory nerves and the motor nerves run into each other. They report to each other; they condition each other; the nervous system is one. Knowing can not be a self-sufficient whole to a being whose organs of knowing are built into its organs of being and whose organs of doing are harnessed up to its organs of knowing. Our nervous system is essentially a unitary arrangement for converting stimuli into appropriate activity and activity into stimuli for further activity. Anatomy and physiology are not alone in that pronouncement. The whole import of biological evolution supports it. Organisms grow in complexity by means of an increasing ability to adjust themselves to an ever-enlarging space and time environment. They advance by participating in the activities of the world, by making them contribute to their organic well-being, in short, by using them. Growth in intelligence is but another name for this growth in organic control. Can intellectualism be the creed of any thinker who has pondered the lesson of evolution? He can no more believe that knowledge is a spectator beholding a double of that which is than he can believe in the special creation of unchanging organic forms.

There is one further constraint that will not let us go until we disavow the ancient double theory of knowledge which has made such a mess of man's comprehension of his relation to the world. Seeing ratifies and confirms believing, and only the believing which can get itself confirmed in seeing or hearing or touching or tasting or smelling can be true. How can it get itself confirmed save by arranging cunningly devised experiments to put its anticipations to the test of sight and sound and touch?

If our anticipations can not be confirmed experimentally, if they obstinately insist upon being different from what comes out when we put them to the careful laboratory test, then there is nothing for it but that such beliefs or anticipations are unmistakably wrong. The test of action runs against them and finds them wanting. But belief, anticipation, judgment, prepare the way for testing. They are not certainty themselves but its unmistakable forerunners. Guessing, dialectic, deduction, may be the fertile mothers of truth, but it will come to birth only in extemporized or natural *de facto* verification. In our generation the laboratory has become the court of last appeal. Literature, religion, abstract logic and prophetic intuition may clamor for attention as loudly as they dare. Man has at last found a way of putting their pronouncements to an action test and finding by outcome whether or not they can be relied upon.

When knowledge under criticism proves to be so different a thing in reality from what uncritical tradition has reported it to be, is it not inevitable that knowledge in the truer sense should begin to be sought everywhere in schools? It is not the double of that which is, any more than the hand is the double of that which it takes hold of; it is not a visual, verbal or auditory image made in the likeness of the existents which stand around us; it is not in any form of verbalism, whether of logical definitions or classifications or realistic or impressionistic descriptions. Above all, it has to do chiefly, not with the past and what has happened thus far, but with the future and what can be made to grow in it. In short, knowledge is activity, selecting purposes, employing the resources of experience and not repeating its achievements of the day before, but out of its acquirements of the past creating new acquirements to meet the demands of the new moment, the new hour, the new day, which calls forth its functioning. Knowledge, that is, is action, is power performing its appropriate work. The engineer has it, the physician has it, the research student has it. It would be better to say of each of them, not that he has it, but that he is it, for if you ask him to verbalize what he knows he can not do it, he can not objectify it as a list of possessions, it has no completeness in itself and can not be counted, inventoried or contemplated esthetically. But give the engineer a bridge or a dam to construct, the physician a patient to heal, the research student an investigation to make, and he knows where to take hold and how to proceed to get results. Their knowledge is an action system, an attitude, a disposition to marshal past experiences to new needs, and they know how.

Normally healthy minds begin putting two and two together at birth. They are not blank sheets of paper upon which the senses write; instead they are musculatured needs which start their search for supplies during the first hour of existence. Some of these needs are fairly definite; most are vague. Together they precipitate a great activity which perpetually seeks to articulate with the environment, tending to repeat itself when it does that, and to try, try again when it fails. The young child is built for experimenting from birth. He is charged with activity, yet ushered into the world so helpless that survival is impossible for him unless he serves a long apprenticeship to the fostering care that substitutes for him at first in making the necessary reactions in the game which nature plays with each of us to see whether we can endure. It is not enough that he survive physically. He must, as rapidly as may be, become his own battler for survival—his own survival and that of others. To do that he must learn to care for the things which his group cares for and do the things which it does

and if possible to do them better than it does; that is, his activity must come to run in the group form. It is just as necessary that his elders should teach him what to do with his brain and muscles, arms and legs as that they should give him a biological equipment of brain and muscles, arms and legs. The nearly complete helplessness of the young, though the most familiar of experiences, is the least observed of facts. We are born languageless, not knowing our right hand from our left, poison from food or danger from safety. All the distinctions of things and qualities, together with the names we give them and the uses to which we put them, must be worked out after we get here. "All that is human is learned," says Professor Dewey.

Here, then, are the factors which must be integrated: a new impulsive being highly charged with indeterminate activity, built to be a learner throughout life, though a slow one, and even then only on condition that the preferences of its own nature are allowed to function in that learning; on the other hand, the human species which has been here a long time and through trial and error slightly mixed with conscious intention has discovered preferred forms of human activity which it commends to its children and which it would engage them to employ. How shall we integrate the equation? Professor Dewey reminds us, and I think this is the key sentence in his educational philosophy, that "only that which has been organized into our disposition so as to enable us to adapt the environment to our needs and to adapt our aims and desires to the situation in which we live is really knowledge."

Man works intelligently by setting purposes before himself and striving to attain them, by unearthing problems and struggling forward to their solution. It is his objectification of his purposes and his systematic assembling of resources with which to reach them that make human action different from brute action, human learning different from merely animal learning. The advice to college students to strive to make high-powered rifles of their minds rather than waste-baskets epitomizes the doctrine. But how shall that be done unless they have been trained to find the target from the first? The ability to carry on research, we are told, is the finest fruit of the training process. If so, at what stage should training in searching begin? Distinguishing facts from conjectures and mere conversation about them, valuing evidence and learning how to find it, putting the proper price tags on things and actions and withal becoming conscious and steadfast servants of truth and honesty are or should be the day-by-day activities of education. But at what point should they begin to characterize the course? Our answer is that all the things that belong to it must characterize education from the first: constructive activity, searching, handling evidence, putting matters to the proof, helping and being helped, cooperating, making up one's own mind, doing one's part—all must have their place in the first school if they are to have their place in the last school and in the life which follows it. The dictum that the school is life, not a preparation for life, becomes altogether clear and self-evident, I think, if we substitute the word health for life. The school must be health now and all the time to be a preparation for health hereafter.

We are born languageless but—and here I should like to avail myself of a quotation—

> The process of acquiring language is a practically perfect model of proper educative growth, the start is from native activities of the vocal apparatus, organs of hearing. . . . The native activities develop through the uses to which they are put. The office of the social medium . . . is to direct growth through putting powers to the best possible use. . . . The natural or native powers furnish the

initiating and limiting forces in all education; they do not furnish its ends or aims. There is no learning except from a beginning in unlearned powers . . . but the moral is not to leave them alone to follow their own spontaneous development but to provide an environment which shall organize them.

There was a time when the young learned everything just as they learned to use the common language. They associated with their elders and helped them in the work of the household. They had an informal apprenticeship to the arts of life. They mastered the elements of its first concerns, the getting of food, clothing and shelter, with as little awareness that they were learning anything indispensable as attended their learning of the home language. They worked with things, had duties, did their part. Then came the industrial revolution and took the basic operations of life out of the home and shut them up out of sight behind the walls of the factory. Schools had been necessary for a long time to teach the difficult arts of reading, writing and arithmetic, which could not well be learned in the leisureless home. But that was only a part of one's learning, an outgrowth and supplement of what one learned at home, and was based on and understood by means of it. When the industries moved away from the home they took away the child's contacts with nature, his first-hand familiarity with things, his life-giving cooperation with his elders in necessary and meaningful work and most of his opportunity for purposeful constructive activity. Informal learning largely fell away, but formal learning went on as before as though it still could live when its roots were gone. Hence the need for a new type of school.

The start is from native activities, just as it is in the child's learning of the mother tongue. Like all young animals, children engage in play-work almost from their birth. Such play is nature's training school for the young of each species, since in it they rehearse the activities they will afterward perform as their business in life. Very young children test the qualities of things by putting them into their mouths and by tearing them to pieces, seemingly in order to put them in their mouths. They are born to handle and explore, to work with tools as their elders do, to make and build, and of a consequence to purpose, plan, assemble means, and with joy and lively interest to carry out their undertakings. It was one of the first philosophers of education who noted this natural tendency in children and advised that it should be made the vehicle of all instruction. "Let their learning," he said, "be a play to them, for no compelled discipline is lasting in the soul." There are those who object to play schools. Usually such too unhesitating thinkers have never tried to distinguish work from play in a definition, and most of them would perhaps be ready to admit that it is only on those days at the end of which one can say, "My work was play for me to-day," that one works best. Let us concede them the name. Let us talk about activity schools and activity education.

Activities mean a lot to adults. It is only when we undertake or project something, be it the preparation of a speech, the writing of an article or a book, the preparation of a case to be tried in court, the ordering of a dinner, the arranging of a party, the growing of a crop, the building of a house, the winning of a game, that the learning process becomes an acutely active process with us. Some one has said God is best worshiped only where man is a creator. Be that as it may, it is clear that the life of man takes on significance and depth and power only in those times and places in which he is caught up in great undertakings and finds his soul invited to great enterprises. It is not otherwise with chil-

dren. They are born just as we are to explore, to find out, to construct, to share in our undertakings, to achieve. When these, their native tendencies, are allowed to function in the school program they work whole-heartedly, they accomplish results and they cooperate with their fellows in making plans and in carrying them out, they handle materials and learn about their qualities and values and the rudiments of the techniques of working them into humanly serviceable forms. It is not because an activity school is more joyous than a lesson-learning school and that all who have a part in it are interested in what they are doing, it is because activity is the only means to effective learning, that we value it. Remember that intellectual work is the conceiving of purposes, the projecting of ends, the determining of objectives and the assembling or unearthing or gathering of means with which to accomplish them. Unless the learner is trained to determine his own undertakings, to conceive his own problems, to set up his own objectives, he is not being trained to work intelligently at all. Activities which are dictated or prescribed, activities in which the learner is told exactly what to do, make him but a hand moved and directed by another person's brain, not using his own thoughtfulness and self-direction at all. There is no education in that, for education is learning to employ one's own intelligence in foreseeing ends and finding out how to reach them. The activity school trains its children to choose their own purposes, to fix upon their own objectives and then to search for the means of accomplishing them, and to do these things cooperatively, that is, with and by the help of their fellows. They learn by doing. Their constructive work gives them a first-hand knowledge of things as materials and the beginnings of human operations with them, and since their undertakings are group undertakings, they typify social situations. Activities which require the perception and elaboration of ends and necessitate the use of judgment in selecting and adapting means to reach them and allow opportunity for the making of mistakes are the ones to be chosen. We want crude materials out of which finished materials will come only with deliberation, situations which make the learner conscious of the problems involved before the solutions are reached, such a using of things as will reveal their properties and lead to skill in the handling of them, not work with formed materials or lessons which merely describe objects without allowing the pupil to find out what they are by using them, or mere exercises. Let the child begin, then, as the race began with the useful social occupations. Let him grow up to an interest in science by making his way through its groundwork. It will not then be meaningless and abstract and, above all, it will not be inert. The knowledge which came first to the race and must come first to each of its children is knowledge of how to do. The primary subject-matter upon which the understanding of its advanced stages altogether depends always exists as matter for doing, handling, working with, constructing according to the learner's need or purpose; otherwise it does not belong to his life. It is just something put upon him to be memorized and reproduced when he is asked for it.

Such groundwork of doing as we have been describing is doing in partnership with others. They assist in making the plans, they share in the enterprise, they make suggestions. They tell us what we did not know and needed to know. The information which they give us has value. It is pertinent to our need. Whatsoever information is of that kind, that is, whatever answers our questions and responds to our felt need, works into our experience and

becomes ours. The rest is words, empty, meaningless and harmful, for it deceives us into believing that we have knowledge when we have it not.

With this core of direct experience of things through operations with them as a background of realization, communication of information through language becomes an available means of indirect experience. By what we have ourselves experienced we can interpret what others tell us they have experienced and thus enlarge the meaning of our own world. The business of information, then, is to enrich and free the personal contacts of life by supplying their background and deepening their significance. The theme of all studies is the life of men. They tell of human operations with nature and with our fellows. They tell us about these operations that we may do them or shun them or use our awareness of them as a frame of understanding to enclose and direct our own operations with nature and our fellow man. The studies most humanly helpful for these purposes are history, science and art—history to go along with geography, and science to begin with nature study. History and geography supply the outline account of men upon and in relation to the earth and to each other. In that account the earth is not a stage with scenery upon which the human drama is worked out. It is a condition, a cause of what takes place. But not the whole cause, for its energies are harnessed and mastered with varying degrees of success. And man's relations to his fellows are not relations of collocation merely, not determining relations only, but determined —determined by him. If this story is to be a dynamic story that comes home, it must begin at home and extend the home facts and the home relations. Its reason for being told is its bearing upon to-day and to-morrow and the day after to-morrow. It must never be merely a tale which is told.

Science is the name for that persistent and methodical endeavor by which the human race has learned to attain reliability in its experiences. It is a method of going to work to find out what we must know, not a reading and a memorizing of what others have found out by working scientifically. The essence of the teaching of science must be such familiarity and love for its method of going to work to find the facts in situations that concern us that that method will be employed as long as one lives. Scientific method is the instrument of progress, the chief intellectual tool of the race. Its significance can be learned only by use. Without appreciation of its value one can not be said to have been converted to the conviction that human intelligence has power to direct human affairs.

Art is creation, but creation has been going on all along in the play-work we have been describing. Art is imagination, and imagining is as real a part of human activity as is seeing with the eyes or grasping with the hand. Both play and purposive work call for a seeing of that which is not yet visible—a sensing or appreciation of meanings. Without that adumbration of expectancy, activity is mechanical. Makings are all one at first. The distinction of fine and coarse, or merely useful, comes later. It is a difference of degree, not of kind. The makings which are outgrowths of an intensified prizing evoke a peculiar enjoyment. They fix taste, they standardize achievement, they arouse in the beholder an illumination of perception which reveals the uncommonness of what but for them had been commonplace. "To feel the meaning of what one is doing and to rejoice in that meaning, to unite in one concurrent fact the unfolding of the inner emotional life and the ordered development of material external conditions—that is art. Art is industry unusually conscious of its own meaning—adequately conscious, emotionally and intellectually."

Art is a mean between the industry which is merely mechanical and a dallying search for beauty which is merely sentimental and effusive. The beginnings of its culture lie in making the play of children productive of results.

In this conception of education everything depends upon the right start—everything except carrying on what is started. Every school must be an activity school. Appreciation must come before technique and the testing of results in every field of endeavor. The student must be introduced to each study by himself, handling simple representative problems and facts in its field to give him a "feel" of its significance. If he is launched with a comprehension of the meaning of his undertaking the ideas generated within him will be possessed ideas, moving ideas, not aborted or truncated learning, not other men's ideas, but ideas that are so much his own that he will not get away from them. They will inevitably flower in his character.

The aim of education is just the making of this process of purposive working with one's world a life process. Intelligence is activity, a verb not a noun. The test of its presence is not a having but a doing. It is the discerning of relationships and the using of continuities in the anticipation of outcomes. Education is but the assisting of that activity through such a remaking of experience as reveals its meaning and thereby increases ability to direct the course of oncoming experience. It succeeds when it assists folks to work by aims—aims which are not given them from the outset and the outside, but aims which they thoughtfully extract from the conditions which surround them and which they employ to order those conditions, realizing their aims when they can be realized and revising and renewing them when they fail to help to the mastery of what must be mastered. The educative process is all one with the moral process, since the objective of both is to bring it to pass that the good man shall not merely repeat his goodness of the day before and the hour before and so become a bad man, for the hour before and the day before are gone and our sole duty is to grow in knowledge and in grace to meet the new demands of the new hour and the new day which is upon us. The only proof that a school is a good school is that its pupils go on eagerly and consciously learning until they die. The good training makes perpetual learners of them.

Contrast this with cultural education whose outcome too frequently is to make us feel superior to our fellows through the possession of an observer's knowledge which they do not possess, though we have not been trained to do anything with it save contemplate our own superiority. Contrast it with vocational education, which has the great advantage of being a training in and for activity, but proceeds within so narrow a framework of meanings as not to enable its students to attain a comprehension of the service which they render or to become resourceful in planning their objectives or constantly to gather experience to remake their service. Contrast it with moral education in which the *ipse dixit* of some master for all time sets the goal and nothing remains for the growing spirit but to accept its purposes upon that master's say-so and merely practice the means to attain them; or contrast it with the education of the religious teacher who begins by making the supreme denial by saying that creation is over and it remains for man to concern himself only with its souvenirs; contrast it with education for citizenship in a state not forever being made by the desire of its citizens, by their wanting it to be, but made by its founders in the past and only read and talked about now. Contrast it, in short, with any and every education which is a preparation for life, a process of outreaching and enlarging

one's resources which stops when school-going stops—and then ask which of these activities ministers to the spirit the more wholesomely, the one which puts it into conscious possession of its powers and makes it aware that its business is the remaking of its world, or the one which makes it feel that the world has been made before it came and all it should do is to hear about it and accept it.

There is, in truth, a great difference here. What is at stake is nothing other than the proper conduct of the souls of men. The issues are the good life or the bad life. The story is still to be written in small letters and in large letters. For the outcome we put our trust in two things which in their present promise are new to the world, democracy and science. Not in democracy as fulfilment, but in democracy as process; not in science as a body of results, but in science as the way of finding out. We think of Plato as forever right when he said each one is fitted by nature for some work and he is happy and his state is well organized when he is doing his work, and only then. But we think Plato was forever wrong when he said there are only three kinds of work to be done in the state and three kinds of natures to do them. He would have had a caste system or at least something very like it. Democracy is the discovery that original capacities are as various as the individuals whose they are and as indispensable to the state. The democratic state on which our hope is fixed is the state which will cherish and use the capacities of its members. Of that better state our present organization of existence is the promise. It will learn to use its resources in folks as it has learned to use its resources in things, that is, it will learn to use its resources spiritual as it has learned to use its resources material. The proof that it will is that it has found the process by which intelligence works to order its world—the process which is scientific method. Not always will men trust to luck or Providence or destiny as their forebears, the astrologers, trusted the stars to bring good fortune to them. They will learn to pray as Hesoid said the farmers should, with their hands upon the plow. The plow which they will use is a fact-finding and fact-comprehending intelligence.

It is those who are responsible for the upbringing of the young who are commissioned especially to serve democracy by enlarging the operation of science. They must come to know and employ the educative process. They must give the native capacities and interests of children a chance working in the spirit of play and along with their fellows and through the searching and assembling necessary to attain constructive ends to train themselves to work by objectives and to objectives, which is the sole form of intellectual efficiency.

"A reorganization of education so that learning takes place in connection with the intelligent carrying forward of purposeful activities is a slow work. It can only be accomplished piecemeal a step at a time," writes Professor Dewey. The image which has forced itself upon my mind as day by day I have reread the writings of this protagonist of a life worthy to be lived by every man is of nothing so much as of another Atlas struggling to lift a world. He will lift it.

THE SOCIAL STATUS OF THE AMERICAN TEACHER

By Dr. SAMUEL R. ELLIS
RIPON COLLEGE

A PROBLEM of vital interest to those concerned with public-school education is the status of the American woman teacher. Historically, the nineteenth century movement of the expansion of the economic and professional activities of women outside domestic limits coincided with

the development and expansion of the public schools. Large numbers of women became teachers when they were needed because of social tradition of the relation of women and children and the fact that the service of women could be procured more cheaply than that of men. Thus the rapid increase of women teachers in elementary and secondary schools may be ascribed in part to low standards of compensation.

Owing to the large number of women employed in public-school teaching, the wide territory over which they are scattered, the inadequate preparation of most of them and the short period of service that is characteristic of the professional life of a teacher, it is difficult to maintain a conscious social status. Conditions everywhere seem to indicate an oversupply of teachers, and all the way from the rural teacher with one year's preparation to the college or university teacher with several years' preparation the situation is somewhat disturbing. However, if the woman teacher is willing to make the effort to become well prepared and if she really loves to teach, she need not worry about job-hunting or the esteem in which she will be regarded in any typical American community.

There is a fixed tradition in the public mind that the ranks of teachers are lacking in outstanding personalities, and that the large majority are narrow in experience and limited in capacity. This may account for the popularity of Bernard Shaw's satirical comment that "Those who can, do; those who can not, teach." From the social point of view a more caustic remark is that of Dr. E. L. Thorndike: "A nation which lets incapables teach it, while the capable men and women only feed, clothe or amuse it, is committing intellectual suicide." In spite of these insinuations it is easy to name scores of women teachers who have ranked high socially and professionally. Among them one could mention Mary Bradford, Patty Hill and Susan M. Dorsey.

The relation of the teacher to the public is not always satisfactory. Neither is this relationship entirely pleasing in other walks of life. For instance, the silliness of social ranks among women is depicted in the *Liberty* magazine for September 7, 1929, in the graphic section. It was as follows: "Thesis: All men are created equal." Then a parallel column diagram revealed Mrs. Hoover as "Most Equal," Mrs. Gann as "More Equal," Mrs. Longworth as "Equal," Miss ——— as "Less Equal," and Mrs. De Priest as "Least Equal."

Frequently the public does not know the teacher as an individual, nor does the teacher feel herself a part of the neighborhood life. Perhaps the teacher seems to prefer to hold aloof from participation in social activity. The public often considers the teacher socially ineffective, so, ignoring her, they go ahead with their organized efforts, disregarding the school group. However, the woman teacher is becoming more of a factor in the social life of the community. The teacher can help to bridge the chasm between the teacher aliens and the social groups of a community. Women's clubs as a rule welcome the teacher, but because of lack of common interest, hours of teachers' service and for class reasons in some cases teachers are unable to take part in the activities of women's clubs. Too often teachers have little contact outside of the professional group. They go together to teachers' institutes and educational association meetings. They go shopping together. They often join tourist groups made up entirely of teachers. In colleges, they are apt to live in a restricted area near the campus. Outside a limited number of professional organizations, which in a sense defeat their own purpose by intensifying clannishness, teachers can not afford to join groups that would enrich their social contacts. Dues, always exorbitant, eat into small salaries. Travel with groups whose income is greater is always humiliating and usually impossible. The average woman teacher can not afford to join the country club and play golf or tennis, which would promote health and bodily vigor as well as sociability.

A vicious caste system within and without the school adds to the social ineffectiveness of the institution. The high-school teachers have gatherings which do not include the elementary teachers and the rural teacher is without the pale of both groups. Far too often the teacher is in the group known as time-servers—tiding over a few lean years until she marries. She is not interested in "putting over" her profession to the general public. She has not the

spirit of adventure in her work, nor does she seek stimulating social contacts. In addition to these limitations, the schools as now organized place such a burden upon the average teacher that she lacks energy for social activity and consequent social usefulness. Long hours in the classroom, the correction of innumerable papers, committee meetings and institutes exact a terrific toll of extra-school effectiveness. In many towns the social alignments are strongly, tenaciously made before the teacher arrives. Whether or not it be her fault, to the end of her service there she remains an outsider. The community looks upon her as a transient, here to-day and gone to-morrow. If schools, colleges and universities are ever to function more effectively as the community unites, a greater degree of what Mary Follett calls interpenetration must take place between the teaching group and the public. The community should strive to know the teacher. Dinners by churches and service clubs are not sufficient, although they are encouraging. A home-dinner invitation will make mutual acquaintance and appreciation possible. An earned increase in salary and membership on some civic committee will also help break down social barriers and lead to a truer recognition of the teacher's place in the world outside the schoolroom. On the other hand, the teacher must be sure that she is alert to possibilities for broader contacts and free from the social sin of clannishness. These are simple and obvious suggestions, but they are definite ways through which the interpretation of the teacher to the public and of the community to the teacher may be hastened.

It may not be amiss to consider the flapper teacher, her effect and her status. Certain it is that a few flappers have been attracted by the supposed short hours and high salaries of the teaching profession. Into the training schools characterized by very serious, often overweary, sometimes all but discouraged faculties, the flapper entered, bringing with her a rare type of daring, directness, braininess and practical ability which contributes much to the training institution. Why look too curiously at her outer aspect or listen too critically to her dialogue or judge her manners too severely? The wily training schools are biding their time and for the present are engaged in sunning themselves in her care-free gaiety and relaxing their tension in her zestful teachableness. But the indignant taxpayer asks, "What about her rôle of model to the child? Let her remember that as a teacher she will not be a free agent." Recently a physician of nation-wide reputation stated that the modern flapper type was better prepared to assume the rôle of motherhood than any generation of women he had known. If this is true of rearing children is it not equally true for teaching children? Certain it is that much of the hypocrisy and sham of the "sky-blue school ma'am" has been replaced by vim, vigor, vitality and sincerity of the present-day so-called flapper. The term describing her is not exact nor meaningful but as in many fields of education and sociology our terminology is weak.

The rural teacher, with her inexperience and lack of preparation, is the real problem when the social status of the American woman teacher is considered. Really the rural teacher is an apostle, prophet and priest of civilization, and yet she is often scantily prepared for the heavy responsibility that is hers. She must exercise the functions of instructor, principal, supervisor, janitor and many times adviser to the board in all matters concerning the purchase of text-books and other equipment for the school. Also, she must sometimes be the recognized community leader, organizing all recreational and civic activities. The solution suggested by Mary Bradford, of Denver, Colorado, is filled with excellent possibilities.

To raise the standards of the rural teacher make the rural positions attractive to the experienced and professionally trained teacher by paying salaries equivalent to those paid in the best city school systems. The beginning teacher should be placed in the city schools as a cadet, receiving her first years of experience under skilled supervisory officers. Then, when scholarship has been attained and professional ability demonstrated, she should be promoted to the more difficult position of rural teacher with a salary commensurate with the multiple function she is asked to discharge. Then the status of rural-school teacher will be that of an honored educator, economically independent because economically recognized as an indispensable factor in the development of civilization.

This seems, however, too much of an educational Utopia for the first half of the twentieth century.

It is conceded by all interested in public-school education that the status of the teacher is rapidly changing. Raising requirements will tend to make the teaching corps a more select group. With more careful selection of entrants, those who are technically and abundantly prepared will dignify the profession. Salary increases based upon advanced training as well as length of service will tend to make tenure more permanent. The social status is largely dependent upon the economic and professional status. The public expects the professional teacher to have a social outlook and places upon her responsibility for community welfare not demanded of the tradeswoman or business woman. Identification with professional organizations, local, state and national, give her an opportunity to broaden her vision and to help shape the destiny of the American public-school system. The public expects expert service. Teachers must be ready. All need to enlarge their conceptions of social possibilities in education. As the social and professional status of the teacher changes and improves, the profession will be acknowledged, duly honored and appreciated. Along with the poet the teacher will take her stand and say:

> I ask for no unearned pleasure,
> No pathway through flowery lanes;
> I offer a full, fair measure
> Of effort for all my gains.

EDUCATIONAL EVENTS

UNIVERSITY TEACHERS' SALARIES IN GREAT BRITAIN

The council of the Association of University Teachers met on December 20 at the King's College of Household and Social Science, Kensington, when, according to the London *Times*, Mr. E. F. D. Witchell, in his presidential address, said that the many cases of actual hardship among university teachers cried aloud for immediate relief. Comparisons of the salaries of lecturers with those paid to secondary school teachers, or to certain branches of the Civil Service, in which the work was not dissimilar to their own, would show how great were the disadvantages to which many of their lecturers were subjected. They realized that governing bodies had very difficult tasks in allocating their inadequate incomes between the many and various needs of their universities, and they had no desire to make those tasks more difficult. But it was their duty to see that the claims of the teaching staffs on these limited resources should not be overlooked.

He accompanied the delegates appointed by the universities on a deputation to the chancellor of the Exchequer at the end of November; that was fully representative of all the universities and university institutions of England, Wales and Scotland. He spoke on the present position of the salaries of university teachers and asked for increased financial assistance so that these could be improved. The other claims on which the universities asked for increased Government grant were presented by Sir Charles Grant Robertson, of Birmingham; the Vice-Chancellor of Cambridge; Mr. MacMillan, of London; Sir Ernest Bain, Treasurer of Leeds University, and Lord Cecil, who introduced the deputation. The reply of the Chancellor of the Exchequer was most sympathetic, and he assured them that the case which had been presented to him should receive his most careful and sympathetic consideration.

It was too early to say what additional financial assistance was likely to be forthcoming from the government, but he thought he might say with confidence that the government grant to universities would be increased, and it should be possible for some improvement in salaries to be effected. But to put into full operation the 1921 joint conference scheme would mean an additional charge on the university of about £300,000 or £400,000; there were urgent demands on university exchequers other than salaries, and there were many and large demands on the National Exchequer besides university requirements. He thought that the fairest statement which could be made on the possible improvement in their financial prospects was that there might be some improvement, but certainly not as much as they could wish.

REVENUE OF THE CALIFORNIA PUBLIC-SCHOOL SYSTEM

THE state director of education, Vierling Kersey, recently stated in a conference with Governor C. C. Young, according to the *U. S. Daily*, that the total revenue raised for the support of California's public-school system during 1927–1928, the last year for which definite data are available, was about $196,000,000, of which 80 per cent. was derived from direct taxation against property.

Mr. Kersey explained that reform is needed in the manner of raising educational revenue. This reform, he suggested, involved four important studies: Lightening the burden of taxation upon real property; providing a greater proportionate share of the state support for the public schools; providing new sources of state revenue for schools, and finally equalizing the burden of school costs as between counties and districts.

The actual cost of education in California for the year 1927–1928 was $160,576,206.91. The difference between the expense of operating the system and the total revenue, a difference of approximately $35,000,000, accrued mostly from the sale of bonds and is carried over into the following year looking toward their retirement.

District taxation, levied against private property, amounted to $121,000,000, or 62 per cent. of the total state revenue.

From the county taxation, an additional $36,000,000, or 18 per cent. of the total, was derived. Thus, the district and county taxes provided revenue amounting to $157,000,000, or 80 per cent. of the total.

All other revenue, including appropriations by the state, receipts from the federal government and donations from foundations and private individuals, amounted to $39,000,000.

Of the total expenditure of more than $160,000,000 all but $37,519,159.68 went to the actual operation and maintenance of the schools. The balance, Mr. Kersey said, was expended on new school buildings and other capital outlays.

It cost the state $93 to maintain a student in the public schools during the 1927–1928 term, and an additional $28 per pupil was expended in buildings. Mr. Kersey pointed out that each pupil represented potentially an investment of $320.

In California there are 5,652 schools, with an enrolment of 1,335,476 pupils, who require a teaching staff of 45,433 persons.

THE CONRAD HUBERT TRUST FUND

THE charitable, religious and educational institutions which have been selected by former President Calvin Coolidge, former Governor Alfred E. Smith and Julius Rosenwald, of Chicago, to participate in the trust fund of more than $6,000,000 created by the late Conrad Hubert, Jersey City flashlight manufacturer, have been announced by the committee, which was chosen by the Bankers Trust Company and C. Bertram Plante, Mr. Hubert's executors and trustees.

In practically all cases the commitment of funds was voted with the "urgent request" that the institutions benefiting raise a like amount or as much more as possible. In this way, it is expected, the six millions or more distributed will produce an additional nine millions, making a total increase of $15,000,000 approximately.

None of the gifts is for endowment, but all are for the furtherance of matured plans involving capital expenditures, rather than annual maintenance. To insure the organizations raising of additional funds, the amounts awarded have in no case been sufficient to complete the programs embarked upon by the organizations.

The awards were made in three classes. The first class, including fifteen separate organizations, will receive a total of $4,600,000 out of funds now on hand. Eight organizations in the second class will share the first million dollars of the residuary estate. Ten organizations in the third class divide equally the rest of the residuary, which if liquidated on as favorable a basis as the Bankers Trust officials believe possible will provide an amount perhaps more than equal to that awarded the second group.

The awards of the first classification are as follows:

The St. Vincent's Hospital of the city of New York	$500,000
The Boy Scouts of America	500,000
Girl Scouts, Inc.	500,000
Provident Hospital of Chicago	500,000
Beekman Street Hospital in the city of New York	500,000

The Children's Aid Society, in the city of New York. (To be used toward the cost of a children's center to be erected on the West Side of New York.) 200,000

The American National Red Cross. (To be used for the construction of a new building by the New York Chapter in New York City.) 375,000

Young Men's Christian Association of Jersey City. (To be used for the erection of an addition to the Central Building.) 250,000

The New York Foundling Hospital, in the City of New York 50,000

International Migration Service, Inc., American Branch 50,000

Jewish Mental Health Society, in the city of New York. (To be used toward building a new hospital.) 250,000

The National Committee for Mental Hygiene 250,000

The Jewish Theological Seminary of America 250,000

Young Men's Hebrew Association, in the City of New York. (To be used toward the cost of its new building) 175,000

New York University, in the city of New York. (To be used toward the cost of new building proposed to be erected at Greene Street and Waverly Place.) 250,000

The full list of the second group is as follows:

University of Chicago, 25 per cent. (to be used for the School of Social Service Administration) $250,000

Henry Street Settlement, in the city of New York, 10 per cent. (to be used for additional nursing service) 100,000

American Foundation for the Blind, Inc., 10 per cent. 100,000

Beth Israel Hospital Association, in the city of New York, 20 per cent. (to be used in connection with the completion of its hospital building) 200,000

Howard University, in the city of Washington, D. C., 20 per cent. (to be used in connection with the building of the Medical School at said university) 200,000

William and Mary College of Williamsburg, Virginia 50,000

The Catholic University of America, located in the City of Washington, D. C. 50,000

University of Virginia 50,000

The ten organizations in the third class are:

The Kent School of Kent, Connecticut.

New York Post Graduate Medical School and Hospital.

Georgia Warm Springs Foundation, Inc.

Leonard Wood Memorial for the Eradication of Leprosy.

Clarke School for the Deaf, Northampton, Massachusetts.

Madonna House of 171 Cherry Street, New York City.

The trustees of the Smith College, for the Smith College School for Social Work, of Northampton, Massachusetts.

The Johns Hopkins University (for the use of its Institute of Law).

Maternity Center Association (incorporated 1919) of 579 Madison Avenue, New York City.

Rollins College of Winter Haven, Florida.

THE GUGGENHEIM DENTAL CLINIC

From the New York *Times* we learn that preliminary plans for the establishment of a six-story dental clinic at 422–28 East Seventy-second Street, equipped to give 200,000 treatments a year to New York's needy school children, were completed recently. The building which is to be the central unit in the Murry and Leonie Guggenheim Dental Clinic, which plans to conduct a comprehensive program of dental prophylaxis among the city's school children, is designed to accommodate seventy dental chairs with facilities for future expansion.

The clinic which was organized by Mr. and Mrs. Murry Guggenheim proposes eventually to establish and maintain a chain of dental clinics for children throughout the city. Its program has received the full cooperation and support of the Board of Education and of the Department of Health and has been officially approved by local dental organizations.

The Seventy-second Street structure, which has been designed by York and Sawyer, architects, in collaboration with Dr. S. S. Goldwater, consultant, will be completely equipped for the different phases of dental work. On the first floor there will be a large entrance hall, a bureau of registration, a social service office, rooms for the preliminary examination and classification of applicants, a check room for children's coats and a rest room for social workers and visiting school teachers.

The principal operative clinics will occupy the two upper floors of the building. Separate floors have been assigned, respectively, to a school for oral hygienists, a department of oral surgery and a department of orthodontia. Other features of the building include X-ray room, a biologic and histologic laboratory, a room for photography, a library, a board room, a lecture room and a dental museum.

The general administrative offices will be located in the building. The clinic's aims represent in a sense the amplification and completion of a program of dental prophylaxis which the city authorities and public health experts long have favored. Special classes for the treatment of children of pre-school age will be established.

During the construction of the building, a small experimental clinic, which already has been established, will be maintained in connection with Public School 82. This clinic, which is situated at 1292 First Avenue near the school, has been organized for dental service exclusively for the school children.

Resolutions pledging the support of the Oral Hygiene Committee of Greater New York, the official representative of the 6,000 local dental practitioners in all matters pertaining to public education and mouth hygiene, endorsed the project of the Guggenheim Clinic and characterized dental disease as "the most prevalent of all the diseases to which our children are subject."

Dental disease, the resolution continued, "outnumbers all others combined" and "the only hope for humanity of escape from the sufferings resultant from widespread incurable dental disease is to be found in a program of prevention applied in early childhood and maintained through life."

In the formulation of a working program the directors of the clinic project have been assisted by a general committee, of which Dr. William J. O'Shea, superintendent of schools, and Dr. Shirley W. Wynne, commissioner of health, are members. Other members of the committee include Dr. Alfred Walker, Dr. Theodor Blum, Dr. Edwin A. Holbrook, Mrs. Sidney C. Borg, Mrs. Bailey B. Burritt and Mrs. John S. Sheppard.

CHILD LABOR DAY

ACCORDING to information sent from The National Child Labor Committee, Child Labor Day (January 25th, Synagogues; January 26th, Sunday Schools and Churches; January 27th, Clubs and Other Organizations), follows a season in which 44 state legislatures were in session. Although two dozen or more bills of some significance for child labor were passed, only two of these were of first-class importance—and scores of progressive child labor bills were rejected.

There are no longer any states entirely lacking a compulsory school attendance law, as did 12 states in 1907; the maximum age for compulsory attendance now varies from 14 to 18 years instead of from 12 to 16 years "if unemployed," and the minimum school term averages somewhat longer now. But there are still 18 states where exemption from school attendance may be secured by children under 14 years, for various reasons, such as poverty or family need.

Mining is no longer considered an occupation for children under 16 in this country. A generation ago only 3 states made the minimum age for work in mines as high as 16 years. There are still 3 states where there is no minimum age for work in factories except indirectly through the school laws, and 5 more where children may work in factories at 12 years or even younger, outside of school hours. But in 1907 only 29 states kept children under 14 out of the factory—and many of these granted liberal exemptions from the law.

For children who go to work there has been a comparable improvement in working conditions through restriction of working hours and prohibition of night work. But in 11 states children under 16 may still work in factories after 7 P. M., and in 12 states they may work more than 8 hours a day.

The federal census of 1930 will, it is hoped, light up numerically the gains made in the last 10 years—and the weak spots remaining. It will show in what states and in what occupations child labor is still prevalent.

Churches, Sunday schools, synagogues, young people's societies and study groups wishing to present a program on Child Labor Day are invited to write for speakers, information, litera-

ture, posters, plays and photographs to the National Child Labor Committee, 215 Fourth Avenue, New York City. An analysis of the child labor law in any state can be supplied.

THE ATLANTA MEETING OF THE DEPARTMENT OF SUPERINTENDENCE

FURTHER details in regard to the approaching meeting of the Department of Superintendence which opens at Atlanta on February 22 have been received. Mr. Frank Bruce, editor of the *American School Board Journal*, will preside over the first general session at the formal opening of the exhibits. Dr. Frank Cody, superintendent of schools, Detroit, Michigan, and president of the department, will preside over the official opening of the meeting at vesper services on Sunday afternoon.

The third general session will open at 8 p. m., with Norman R. Crozier, superintendent of schools, Dallas, Texas, presiding. Greetings from New Jersey will be presented by Charles H. Elliott, state commissioner of education, who will be followed by a recital of the New Jersey All State Orchestra.

The fourth general session on Monday, presided over by the president, Dr. Frank Cody, will open with music, followed by the invocation. Dr. Cody will then deliver his presidential address. A symposium on "Education for Friendliness" follows. The speakers and subjects are: Mrs. Edith B. Joynes, president of the department of classroom teachers of the National Education Association, 1928–29, on teacher relationships; Mrs. Susan M. Dorsey, superintendent emeritus, Los Angeles, California, on superintendent relationships; Father J. Elliot Ross, chaplain to Catholic students, State University of Iowa, on relationships between public and parochial schools, and Paul C. Stetson, superintendent of schools, Dayton, Ohio, on school-community relationships. The symposium will be followed by a business session and committee reports.

Tuesday afternoon, February 25, will be given up to twelve discussion groups, the subjects and chairmen of which are: Instruction: materials of teaching: J. F. Noonan, superintendent of schools, Mahanoy City, Pa.; Methods of teaching: C. H. Garwood, superintendent of schools, Harrisburg, Pa.; Measurement: George F. Arps, Dean, College of Education, Ohio State University, Columbus, Ohio; Organization: Walter R. Hepner, superintendent of schools, San Diego, California; Administration: M. C. Potter, superintendent of schools, Milwaukee, Wisconsin; The school plant: buildings and equipment: H. W. Anderson, deputy superintendent of schools, Denver, Colorado; Operation and Maintenance: Nicholas Bauer, superintendent of schools, New Orleans, Louisiana; Personnel: Rating and standards: Rose A. Pesta, assistant superintendent of schools, Chicago, Illinois; Salaries: George Melcher, superintendent of schools, Kansas City, Missouri; Finance: David E. Weglein, superintendent of schools, Baltimore, Maryland; Public relations: Publicity program: J. J. Early, superintendent of schools, Sheridan, Wyoming; Cooperation with outside organizations: Thomas R. Cole, superintendent of schools, Seattle, Washington.

The sixth session on Tuesday is in honor of the sixtieth anniversary of the department. Dr. Cody presides. The general subject is "Education is practical." After music and the invocation, a symposium on the achievements of American education, with fifteen-minute speeches, will be given as follows: Instruction, by Charles H. Judd, director, School of Education, University of Chicago; Organization, by John H. Logan, superintendent of schools, Newark, New Jersey; Administration, J. B. Edmonson, dean, School of Education, University of Michigan; The school plant, N. L. Engelhardt, Teachers College, Columbia University; Personnel, C. B. Glenn, superintendent of schools, Birmingham, Alabama; Finance, Frank W. Ballou, superintendent of schools, Washington, D. C.; Public relations, Francis G. Blair, state superintendent of public instruction, Springfield, Illinois. Sixty years of progress will then be celebrated by the introduction of past presidents and honorary members. The session will close with a business meeting and the nomination of officers from the floor.

The session on Wednesday afternoon, February 26, is on "Progress through Supervision" with the following program: State departments of education, Charles H. Elliott, New Jersey State Commissioner of Education; County

superintendents, Kate Wofford, county superintendent of schools, Laurens, South Carolina; Superintendents of cities with population less than 10,000, John L. Bracken, superintendent of schools, Clayton, Missouri; Superintendents of cities with population from 10,000 to 50,000, A. W. Elliott, superintendent of schools, Mt. Vernon, Ohio; Superintendents of cities with population from 50,000 to 100,000, J. W. Sexton, superintendent of schools, Lansing, Mich.; Superintendents of cities with population from 100,000 to 200,000, A. H. Hughey, superintendent of schools, El Paso, Texas; Superintendents of cities with population over 200,000, William J. Bogan, superintendent of schools, Chicago, Ill.

EDUCATIONAL NOTES AND NEWS

DR. THOMAS HUNT MORGAN, director of the Kerckhoff Laboratories of the Biological Sciences of the California Institute of Technology, until recently professor of experimental zoology in Columbia University, was elected president of the American Association for the Advancement of Science at the close of the Des Moines meeting.

DR. WILLIAM B. MUNRO, Jonathan Trumbull professor of American history and government at Harvard University, has been elected president of the American Association of University Professors to succeed Professor Henry Crew, of Northwestern University. Other officers elected at the meeting at Duke University are: Hardin Craig, Stanford University, and J. S. Guy, Emory University, *vice-presidents;* H. W. Tyler, Massachusetts Institute of Technology, *general secretary;* Joseph Mayer, Tufts College, *executive secretary and treasurer.* Members of the council elected for 1930 are: J. H. Breasted, University of Chicago; J. P. W. Crawford, University of Pennsylvania; G. W. Cunningham, Cornell University; Paul Emerson, Iowa State College; Yandell Henderson, Yale University; L. L. Hendren, University of Georgia; Buford J. Johnson, the Johns Hopkins University; E. L. Panson, University of Wisconsin; Louise Pound, University of Nebraska; B. J. Vos, Indiana University. At the closing session it was announced that Dr. H. W. Tyler, the general secretary, will retire from the Massachusetts Institute of Technology at the end of the present year and take up his residence in Washington to devote half of his time to the association.

THE following officers were elected at the recent meeting at Union Theological Seminary, New York, of the American Society of Church History: Professor William D. Schermerhorn, of Evanston, Illinois, *president;* Professor A. R. Wentz, of Gettysburg, Pennsylvania, *vice-president;* Professor F. W. Loetscher, of Princeton Theological Seminary, *secretary;* Professor Matthew Spinka, of Chicago Theological Seminary, *assistant secretary;* Professor Robert H. Nichols, of Auburn, New York, *treasurer.* Professor William Warren Sweet, of the University of Chicago, and Professor Conrad H. Moehlman, of Rochester Theological Seminary, were elected to the council.

PROFESSOR JOHN DOLMAN, of the University of Pennsylvania, was elected president of the National Association of Teachers of Speech at the annual meeting on January 1. The next convention will be held in Chicago in December.

DR. FREDERICK J. E. WOODBRIDGE, of Columbia University, was reelected president of Alpha Delta Phi, national college fraternity, at the closing session of its ninety-eighth annual meeting at Portland, Maine. Montreal was chosen as the 1930 convention city.

THE department of architecture of Harvard University was on December 26 awarded the university medal of the American Group of the Society of Architects of the French Government. The award, which is given annually by the organization, of which Edwin H. Denby is president, to an American university for proficiency in its school of architecture, was received by Dr. George Harold Edgell, dean of the department of architecture at Harvard University. Presentation was made at a luncheon in the Metropolitan Club, New York. The University of Illinois received the honor last year. A medal was awarded to Horace G. Driver for the best work as a student in architecture. The speakers at the luncheon were Maxime Mon-

gendre, consul general of France in New York; Dr. Finley, associate editor of the New York *Times*, and George McAneny, former borough president of Manhattan.

THE one thousand dollar prize offered annually by the American Association for the Advancement of Science for "a noteworthy contribution to science" presented at the meeting was awarded at Des Moines to Professor Arthur J. Dempster, of the University of Chicago, for work on wave characteristics of the proton.

DR. HARVEY W. WILEY has resigned as director of the *Good Housekeeping* Bureau of Foods, Sanitation and Health, which was established by and for him in 1912. Dr. Wiley, who recently reached his eighty-sixth year, has been made director emeritus.

WALTER S. BISCOE, senior librarian of the New York State Library, retired on January 1 after serving for forty-one years. Mr. Biscoe was a member of the committee of the American Library Association that prepared standard cataloguing rules for libraries, and is widely known as a bibliographer. He went to Albany from the Columbia University Library.

DR. DAVID M. ROBINSON, professor of archeology at the Johns Hopkins University, has declined an offer to become dean of the college of arts and sciences and head of the department of fine arts of New York University.

PROFESSOR F. CLARKE, formerly of Cape Town University and now of McGill University, has been appointed visiting professor of education in Teachers College, with a seat in the faculty of education, for the spring session of the current academic year. Professor Clarke will give a course on "Some Social and Political Factors in the Educational Development of English-speaking Communities" and a general course on the "Principles of Education."

DR. WALTER B. CANNON, George Higginson professor of physiology at the Harvard Medical School, has sailed for France to serve as Harvard exchange professor at the Sorbonne and at the Ecole de Médecine in Paris. He will lecture also at provincial universities in France and in the Belgian universities during the second half-year.

PAUL GREEN, assistant professor of philosophy and playwright, has returned to the University of North Carolina after an extensive European tour. The trip was made possible by a Guggenheim fellowship awarded in 1927, which enabled him to make a study of the European drama.

DR. R. A. F. MCDONALD, head of the department of education at Bates College, has been granted sabbatical leave for the second semester of the present academic year, to enable him to study at the University of London and later to travel on the continent.

DR. C. E. PERSONS, who was lecturer on economics at Harvard last year, has been appointed to the U. S. Census Bureau. He will have charge of the statistics on unemployment.

MISS M. GLADYS HAYDEN, former instructor and dean of women at the Albion State Normal College, Idaho, has been elected head of the practice teaching department at Gooding College, to cooperate with near-by city and county superintendents.

The School Board Journal reports that Mr. Homer P. Shepherd, superintendent of schools at Knoxville, Tennessee, was recently ordered by the court to pay $5,000 damages to Mr. Rupert Reynolds, a discharged principal. Mr. Reynolds sued the superintendent for $50,000 alleging that the latter had libeled him in a newspaper statement which attributed the dismissal to inefficiency.

LOUIS K. ROURKE has been elected superintendent of construction of Boston public school buildings by the new schoolhouse commission at a salary of $12,000.

JAMES D. TOOLE, of Minersville, has been appointed assistant county superintendent of Schuylkill County, Pennsylvania, to succeed the late Martin E. Foyle, who was killed in an automobile accident last spring.

WE learn from the *School Board Journal* that a bronze tablet in appreciation of the service of Dr. Charles H. Ludlum, for forty years a member of the board of education of Hempstead, New York, has been placed in a new school which bears his name, and that a bronze tablet has been erected in the Halstead

Avenue School, Harrison, New York, in memory of Mr. Edwin L. Gilbert, who served on the board of education for twenty-four years.

THE work of placing memorial tablets on several buildings important in the history of Wabash College is under way. A tablet recently placed on Forrest Hall bears a brief history of the building. This is similar to that placed three years ago on the Mills home, now occupied by President Hopkins. A tablet will also be placed on the home of Professor Theodore G. Gronert. Tablets will be placed at the Grant, Wabash and Millikin Street entrances, bearing the name of the college and the date of founding.

PROFESSOR GEORGE E. WOODBERRY died on January 2 at the age of seventy-four years. He was a distinguished author, critic and poet, holding the chair of comparative literature at Columbia University from 1891 to 1904.

DR. E. RAYMOND TURNER, professor of European history at the Johns Hopkins University and the author of historical works, including a history of the British Empire, died on January 1 in his forty-ninth year.

AT the time of the Associated Academic Principals meeting in Syracuse, N. Y., during the holidays, an Educational Research Association of New York State was organized following a luncheon and research program on December 26. The question of organization had been under discussion for a year. A great deal of enthusiasm was manifested in this meeting both on the part of those who are now actively engaged in research and on the part of those who wished to foster further research activity. The following were elected officers: *President,* Warren W. Coxe, director of educational research, New York State Education Department; *Vice-president,* Harry P. Smith, director of research, Syracuse Public Schools, and professor of education, Syracuse University; *Secretary-Treasurer,* Arthur L. Maxon, director of research, Department of Public Instruction, Schenectady; *Directors,* J. E. Butterworth, Professor of Education, Cornell University, and Worth McClure, Professor of Education, University of Buffalo.

THE four-day conference of the National Student Federation of the United States of America opened at Stanford University on January 1 with a welcoming address by Dr. Robert E. Swain, acting president of Stanford University, followed by a reception at the home of Dr. Swain. Among the subjects discussed at the meeting were athletics and national eligibility rules, fraternities and sororities, and the relationship of students to the city in which the college is located.

THE second annual summer institute of the Progressive Education Association will be held at Vassar College, Poughkeepsie, New York, for six weeks in the summer of 1930. Courses in the history and principles of progressive education, experiments in progressive education, primary school methods and materials, primary school administration, secondary school methods and materials and secondary school administration will be offered. The institute will be held in conjunction with the Vassar Institute of Euthenics, where additional courses in general child welfare, adult education and the arts and crafts will be available to all students.

THE cornerstone of the Education Building for the state of Pennsylvania at Harrisburg has been laid, with Governor Fisher, Dr. Keith and other state officials participating in the ceremonies. Work on the building will be pushed with all possible speed, and occupancy is promised for December, 1930.

THE social science building of the University of Chicago, which, with its equipment, cost $660-000, was dedicated last week to a two-day ceremony. The building and its maintenance was provided by a gift of the Laura Spelman Rockefeller Memorial. Planned entirely as a research laboratory, it has provision for instruction related only to research. Included in the equipment is a laboratory for chemistry for use in connection with certain projects in psychology, a physiological-psychiatric laboratory, special speech-reproducing apparatus, and a statistical laboratory with calculating devices for tabulation of data. Attending the two-day ceremony of dedication were eminent social scientists of the United States and abroad. The foreign delegates included Albrecht Mendelssohn-Bartholdy,

professor of comparative jurisprudence in the University of Hamburg; Sir William Beveridge, director of the London School of Economics and Political Science, and Célestin Bouglé, professor of social philosophy in the Sorbonne, all of whom delivered addresses. Wesley C. Mitchell, professor of economics in Columbia University; Wilson Gee, institute for research in the social sciences, University of Virginia; Howard Odum, institute for research in social science, University of North Carolina; Murray S. Wildman, Stanford University Council; Max S. Handman, University of Texas Council; Arthur M. Schlesinger, The Milton Fund of Harvard University; Edwin R. Embree, president of the Julius Rosenwald Fund; John C. Merriam, president of the Carnegie Institution; Donald Slesinger, Yale Institute of Human Relations; Dr. Milton C. Winternitz, dean of the Yale Medical School; Harold G. Moulton, president of the Brookings Institution, Washington, D. C.; Walter Dill Scott, president of Northwestern University; Beardsley Ruml, director of the Spelman Fund; Franz Boas, professor of anthropology in Columbia University; C. Judson Herrick, professor of neurology in the University of Chicago; T. V. Smith, professor of philosophy in the University of Chicago, and Charles E. Merriam, professor and chairman of the department of political science, were represented on the program. Dr. Edwin B. Wilson, president of the Social Science Research Council, was the orator at the convocation which was the concluding event of the dedication ceremonies of both the Social Science Building and the George Herbert Jones Laboratory of Chemistry.

THE $15,000,000 campaign conducted for the endowment of the six American colleges in the Near East, the American University of Beirut, Robert College, Constantinople Woman's College, International College of Smyrna, the American College of Sofia and Athens College, was completed successfully, according to a statement made by the executive committee of the Near East College Association. The fund is intended as a memorial to Cleveland H. Dodge, who for many years was president of the board of trustees of Robert College, in Constantinople. The largest single gift was $3,500,000 from the estate of Charles M. Hall. Other contributors included Edward S. Harkness, $1,000,000; John D. Rockefeller, Jr., $500,000; Julius Rosenwald, $250,000; the Laura Spelman Rockefeller Memorial, $750,000; Charles R. Crane, $100,000; Professor J. R. Jewett, of Harvard, $60,000; Mrs. John S. Kennedy, Arthur Curtiss James, V. Everit Macy, Mrs. William Church Osborn, Mrs. Van Santvoord Merle Smith, Mr. and Mrs. Henry Pfieffer, Miss Mary G. Thomson, Cyrus McCormick, Mrs. Wilton Lloyd-Smith, J. Pierpont Morgan and Stephen C. Clark.

THE College for Women of Western Reserve University announces success of the campaign for a $1,000,000 endowment fund started last summer by the $100,000 gift from E. S. Harkness, conditional on the raising of $900,000 elsewhere.

AN appropriation of $200,000 by the Carnegie Corporation, of New York, to be used by the Pan-American Union in its building program, was announced by Henry L. Stimson, Secretary of State, at a meeting on January 3 of the board of governors of the Union. If the Union starts its new building prior to October 30, 1930, $300,000 more will be allotted.

A GIFT of $250,000 to the American Schools of Oriental Research over a seven-year period, and a tentative gift of a similar sum, conditional upon the raising of a like amount, have been made by the Rockefeller Foundation, according to an announcement made by the Rev. Dr. James A. Montgomery, Professor of Semitic Languages at the University of Pennsylvania and president of the American Schools of Oriental Research. The organization to receive the benefactions is a corporation of which more than fifty colleges, universities and theological seminaries of this country are members. Its roster includes foremost archeologists and paleontologists, and its work has been carried forward in the Orient for the past thirty years, principally in Palestine and Mesopotamia.

ROBERT F. BALLANTINE gymnasium of Rutgers University at New Brunswick, N. J., was destroyed by fire on January 6, completely wiping out all sports records for the last fifty years, it is feared, as well as all athletic equipment. The loss is estimated at $200,000. The

gymnasium was a gift to the university from Robert F. Ballantine, of Newark, and in 1914 an extension, including the swimming pool, was built by Mrs. Ballantine.

DISCUSSION

THE PARADOX OF AMERICAN EDUCATION

THE paradox of American education is the fact that in spite of the far greater interest in the subject in this country American education is far worse than European. The cause of this paradox appears to lie in the application of psychology to education. Such an application seems reasonable and could be very fruitful, but it has come about that, in the tide of their enthusiasm for the services that psychology can render, educational theorists have gone to an extreme, have supposed that psychology could give the complete answer to their problems and have lost sight of certain non-psychological considerations that are of paramount importance. This has happened in three ways.

(1) There is a definite limit to the services that psychology can render to the theory of education. It can tell us the consequences of various actions on children; it can tell us what helps and what hinders memorization, and so forth. This is information of the greatest value, and it would be very wrong to neglect it. But for a successful plan of education there is something else that it is infinitely more important to know, namely, the result at which we ought to aim in bringing up our children. And that is something that psychology can not tell us. Psychology is a science, and science has nothing to say about right and wrong and good and bad. In order to get on to the psychological part of the business, on which his heart is set, the theorist has often assumed his view of what educators ought to aim at, without reflection.

(2) Psychological researches have frequently revealed bad effects resulting from traditional methods of education. It has often happened that the theorist has immediately pronounced that the traditional method must be abandoned. This is an unjustifiable procedure, because it assumes that the disadvantages discovered by psychology outweigh the advantages that the traditional method was designed to secure. Before any alteration in practice is undertaken there ought to be a thorough investigation of the question whether all the disadvantages of the traditional method, taken as a whole, outweigh all its advantages, taken as a whole.

(3) Professor John Dewey has made a virtue out of actual practice, and enunciated a view that is scarcely distinguishable from the view that *we ought not to ask what the aim of education is.* This is at any rate the general impression left by his chapter on the subject in "Democracy and Education." We learn that all proposed aims should be accepted,[1] as if they were all compatible and all desirable; that "educators have to be on their guard against ends that are alleged to be general and ultimate,"[2] that "even the most valid aims which can be put into words will, as words, do more harm than good unless one recognizes that they are not aims, but rather suggestions to educators as to how to observe, how to look ahead,"[3] and that the aim of education is "to enable individuals to continue their education."[4] Thus the practice of teaching without considering what the purpose of teaching is has received official approval.

In contrast to the above view the present essay maintains that it is absolutely essential to ask why we educate and what results we ought to aim at in educating, and that we could dispense with the whole of educational psychology much less disastrously than with the answer to this question.

Our true aim must be to realize that good whose nature we discern, which is roughly divisible into truth, beauty and virtue, in which last I include love. The aim of education is that more of us shall produce, possess and enjoy more of these things. It is presumably a self-evident fact that any education whose ultimate aim is not culture in this sense is wrong.

[1] p. 128.
[2] p. 127.
[3] p. 125.
[4] p. 117.

The justification of technical training is that it is necessary for the comfort without which we can not have culture.

How much can the state contribute to this end? As usual, very little. Where there are private persons willing to undertake education it is for the most part better done than the state can do it, and the laws ought to suffer the existence of a few obviously inefficient private schools rather than make private education impossible. The extent of the state's power is still further curtailed by the fact that all its schools are day-schools, and a very large part of the influences that mold us in childhood come during the times we spend outside the classroom. If we divide the results of education into (1) training and (2) information, the amount that the day-school can contribute to the former is very small. It can train us to use our brains, and that is nearly all. Other traits of character will come to us only from the people among whom we eat and sleep. On the other hand, it can add any amount to our information.

How should the day-school go about it to further the pursuit of culture so far as it can? The intellectual training that it can give us is obviously very important to this end, and moreover it is something that we shall find it hard to learn elsewhere. A school is a fraud if it does not impart the capacity for hard and fruitful intellectual labor. It is the duty of our teachers to put pressure on us. The statement that "the child should be able perfectly and easily to solve each new problem the first time it is attacked"[5] is absurd. We want to be able to solve more difficult problems than that. We have the right to be trained so that we can solve problems that yield only to persistent effort, and therefore we must be introduced early in life to hard work in the difficult disciplines. The fact that psychology can point to cases where a person's development has been arrested through the excessive difficulty of the tasks set before him is no reason whatever for the statement that he ought not to be confronted with *any* difficulty at all. It is a crime to send children out of school without experience of the severest mental effort of which they are capable.

In the other department of education, information, the day-school can give us much help. Three principles may be noticed here. (1) Other things being equal, it is the duty of our teachers to teach us as much as possible. We do not, of course, want to be crammed with matter that we shall not remember, but we want to have all the information we can as part of our permanent mental furniture. We are all in danger and in suffering because of our ignorance.

(2) We wish to be taught those disciplines that will lead us best to appreciate and cultivate virtue, beauty and truth. Which these are is disputable within limits, but few will deny that languages, history and mathematics are the foundation of it all, or at least extremely important parts. They are worthy disciplines, and they introduce us, languages and history to the whole field of arts, and mathematics to the whole field of science. It is right that even those who intend to specialize most in a technical pursuit should make a considerable study of these three subjects, for it is dangerous to the race as a whole that there should be people growing up in ignorance of them.

(3) There is a certain principle, obvious enough when once stated, that is largely overlooked in modern American education. This is that we should not be taught in school things that we shall learn anyhow, without much waste of time, in our experience in after life. What the school should give us is that which is necessary and yet can not be got easily anywhere else. This principle should often be applied in opposition to the principle that education should fit us for our vocation; it is a waste of opportunity to teach us in school things that the first two years of our vocation will teach us anyhow, and educators should seize every opportunity of throwing the work of merely vocational training on to the employers themselves. The further application of it is as follows. The few years that we spend at school can not compete with the rest of our lives in the *volume* of the information they teach us, but they can very easily do so

[5] Raymond Holder Wheeler, "The Science of Psychology," p. 115.

in its *systematic* character. Our school-time is the best opportunity we have to learn organized and complete bodies of facts. For example, at school we can learn the whole outline of the history of a given people in a given time. In later life we shall pick up more historical facts than we ever learned at school; but they will not be concentrated; they will not belong to the same people and the same period. In later life, again, we shall pick up what can be learned on the run, but not what requires constant exercise and practice. These considerations indicate that we ought to learn at school that which, being necessary to cultured persons, requires drudgery and is not learned in later life. The most desirable results can not be obtained without drudgery. The present tendency, therefore, to cut out the element of drill, to reduce education to the imparting of titbits about the modern world (such as "human geography"), and thus to produce young people who are superficially sophisticated but fundamentally ignorant, is contrary to our best interests.

RICHARD ROBINSON
CORNELL UNIVERSITY

THE SALARY SCHEDULE

IN considering teachers' salary schedules public-school administrators are confronted with several important questions in addition to minimum, maximum and annual increment. Before a decision can be reached in regard to these three questions, certain other problems must be solved.

Shall the single salary schedule be adopted? What shall be the minimum of professional training? What provision shall be made for recognition of professional training in service? Shall the annual increment be made contingent upon the taking of professional courses by the teachers? Shall the regular annual increment be increased provided the teachers pursue extension courses or summer-school courses? Shall the teachers be rated for the purpose of administration of the salary schedule? Teacher turnover, supply and demand, cost of living and the ability of the city to pay are among the other factors to be considered in planning a salary schedule.

The single salary idea is based on the principle of recognition of professional training and on the thesis that teaching in the high school is no more difficult and no more important than in the elementary grades. The single salary schedule bases differences in salary on the professional qualifications of the individual teachers. Qualifications are usually determined by (1) the number of years of academic and professional training beyond high school and (2) experience. A third measure of qualification, which is very little used, is teaching efficiency.

Wherever teaching efficiency is used as a measure of teacher qualification it is supplementary to and subordinate to the other measures. If it were possible to determine what "teaching efficiency" is, the first two measures wouldn't be needed at all. A minimum of academic and professional training beyond high school would be required of all teachers and salary differentials within the single salary schedule would be determined entirely by the single measure, teaching efficiency.

A weakness in the single salary idea is that it ignores the importance of academic training in subject-matter, and that it does not differentiate between academic training and professional training. Dr. Bagley's professionalized subject-matter theory in teacher preparation is sound and sensible. It combines academic training and professional training. But unfortunately in most school systems, "training beyond high school" means years of education beyond high school, whether such training is in a teacher-training institution or in a liberal arts college where subject-matter is not professionalized.

Scholarship in the subject to be taught is a prerequisite for good teaching. But knowledge of subject-matter does not insure ability to teach. A knowledge of the principles of educational theory and educational practice is essential. The inexperienced two-year normal-school graduate is better equipped to teach in the elementary grades than the honor graduate of a four-year liberal arts college. This is an obstacle which confronts the administrator when he considers the salary schedule.

The adoption of an adequate salary schedule for teachers has only one main purpose. That purpose is to provide in the highest possible degree for the educational welfare of the boys and girls in the schools. In order to accomplish

this aim a salary schedule must be such that it will enable the school department to do the following things: (1) Bring into the schools properly qualified teachers. (2) Make it certain that there will be professional growth on the part of individual teachers and on the part of the staff as a whole. (3) Retain a high percentage of the best teachers rather than lose them to other school systems. (4) Establish and maintain a high morale in the teaching personnel by making it possible for the teachers to provide for their recognized financial necessities, including savings, and to enable them to live a satisfactory social and cultural life.

W. C. McGINNIS

PERTH AMBOY, N. J.

SPECIAL CORRESPONDENCE

SEMICENTENNIAL OF THE UNIVERSITY OF SOUTHERN CALIFORNIA

FOUNDED a half century ago, in 1880, the University of Southern California is preparing to commemorate its fiftieth birthday by a fitting and significant semicentennial celebration in June, 1930. Graphically stressing the university's highest aims and achievements—scholastic endeavor, academic advancement, worthy research and moral idealism—the anniversary celebration will occupy a week. The program is under the direction of Dean Rockwell D. Hunt, appointed general chairman by President R. B. von KleinSmid.

Educators of note, Trojan alumni, scientists and citizens of this and other countries will gather in Los Angeles to pay homage to those whose work contributed to the development of the university, and to witness the reenactment, in pageant and song, of events in the history of the institution.

It was in August, 1880, that the incorporation of the western educational institution was achieved. Then a trio of donors presented 308 lots in West Los Angeles to a pioneer board of directors to finance the proposed school. By the articles of incorporation, the state of California granted the name, The University of Southern California, to the new institution, and the policy of coeducation was established.

Classes began in October, 1880, under the guidance of Dr. Marion McKinley Bovard, the first president of the university. Later his brother, Dr. George Finley Bovard, a graduate of the class of 1884, served as president for eighteen years (and is now president emeritus). For the past eight years Dr. R. B. von KleinSmid has been president, while Colonel Warren B. Bovard, son of Dr. George F. Bovard, is vice-president and controller, and Dr. Frank C. Touton is vice-president and educational director.

When the University of Southern California opened its doors, fifty-five students gathered in the first frame building under the supervision of ten instructors. Los Angeles was at that time a frontier town of the southwest with a population of 11,183, and with forty-three teachers in its school system. City and university have grown apace, for recent figures show that, with one exception, the population of Los Angeles has doubled every ten years, while the enrolment of students at the university has tripled every decade except the third. Los Angeles has changed from a village to a metropolitan center, and the University of Southern California has evolved from a small college of liberal arts to a many-sided university, recognized by the Association of American Universities, measuring up to rigorous scholastic requirements. Phi Beta Kappa, Phi Kappa Phi and the Order of the Coif are among the ninety-nine honorary and professional societies with chapters at Southern California.

Twenty schools and colleges are manned by more than 400 faculty members, and serve a yearly enrolment of more than 15,000 students.

The campus, known as University Park, adjoins Exposition Park, which contains the Los Angeles museum of history, art and science, and the California State Exposition Building, with exhibits of the state's resources and industries. In the museum are collections of the Historical Society of Southern California, the Academy of Science, the Cooper Ornithological Society, the Fine Arts League of Los Angeles and numerous private collections, all conveniently available to students.

The University of Southern California elects to stay close to the center of Los Angeles, immersed in the problems of the metropolis of the Pacific-Southwest, rubbing elbows with its citizens, sharing the energy of its life and educating its youth not only in study hall and classroom but also with the cooperation of urban industries, the harbor, the hospitals, the courts and the city's commercial and cultural forces.

Research, carried on in campus laboratories and libraries, as well as in actual commercial, industrial, legal and educational establishments of the section, constitutes one of the institution's most important services. Activities of faculty and students, practical as well as academic, reach out into the community through such departments as the speakers bureau, the employment and appointment bureaus, the bureau of field work, the division of radio education, correspondence study department, the legal aid clinic, the department of coordination, the dental clinic, community classes, the annual institutes of international relations in December and of public administration in April, and departmental publications such as the *Personalist* of the department of philosophy, the *Southern California Law Review* and the *Journal of Sociology and Social Research*.

By means of its professional schools (law, commerce, medicine, architecture, dentistry, engineering, music, public administration and pharmacy), as well as the scientific, artistic and cultural phases of education emphasized in the college of letters, arts and sciences, the Trojan university aims to aid the southwest in developing its resources and capacities to the utmost, so that it may render worthy and conspicuous service in national and world affairs. The student body of the graduate school represents more than one hundred schools and colleges, including not only Americans from every section of this country, but also students from the Orient, Mexico, Canada and European and Asiatic countries. The student body of University College, the evening division, located in the heart of the Los Angeles business district, provides continuation college work to nearly 6,000 adults annually.

The University of Southern California is nonsectarian, and is attended by members of many and varied religious faiths. Yet it recognizes that Christian influences in education help to stabilize the social order. A recent survey showed that forty-one denominations and religions are represented in the Trojan student body, among which the most numerously apparent are the Baptist, Catholic, Christian, Christian Science, Congregational, Episcopal, Methodist and Presbyterian denominations.

Eleven veteran educators who have been affiliated with the University of Southern California for twenty-five years or more comprise an honorary faculty committee of the semicentennial celebration. The quarter-century sages who, from 1884 to 1905 became instructors at the university, have continued their interest and service. In addition to this "silver-committee," founders, former faculty members, former students and those who have sponsored and supported the institution will be prominent in the program of the golden anniversary in June, 1930. Many who have received honorary degrees from Southern California, those who have endowed the university with funds, scholarships, libraries, museum materials, buildings and equipment, and other benefactors and beneficiaries of the institution will mingle during the anniversary week as participants and spectators.

Educational exhibits, scientific studies, faculty publications and departmental demonstrations will be among the academic features of the program.

With addresses by national notables prominent in an appropriate field, four new buildings will be dedicated with fitting ceremonies.

A historical pageant, staged by students of the school of speech, will reveal by spectacular parade the evolution of the University of Southern California from the eighties to the 1930 era.

A collegiate chorus of 500 voices, accompanied by a student orchestra of 100 pieces and assisted by national artists, will render the oratorio "Elijah," and a festival of music by campus musical organizations, including the Trojan Band and the Glee Clubs, will be held.

The Alumni Association will be in charge of the golden jubilee banquet, as well as numerous class reunions, and it is planned that the cornerstone of a magnificent new library building, to be erected by alumni contributions, will be laid during the semicentennial week.

A university ode, expressing through poetry and music the traditions and ideals of the university, will be chanted by a student chorus.

Emblematic of courage, skill and wisdom, a gigantic Trojan statue, "The Spirit of Troy," will be unveiled by the Alumni Association, during the semicentennial celebration. The statue will thereafter serve as a shrine where Trojan students, alumni and friends will assemble for celebrations, athletic rallies, reunions and social and academic gatherings.

A definite program of expansion involving the investment of $40,000,000 has been planned, providing for more ample endowments and additional structures to house more adequately the colleges of commerce and music, the schools of religion and education, a separate building to contain the school of speech and a university theater, a marine laboratory and other divisions.

Dr. R. B. von KleinSmid, president of Southern California since 1921, voices the pledge of the trustees, the administration and the faculty of the university as follows:

> The University of Southern California will hold fast to its conviction that education is a living process, as adjustable as life itself, using the materials provided by the past to make the products of the future. It will continue to devote itself to what it conceives to be the urgent problems of higher education in this present age—the adapting of university facilities to the needs expressed in modern society.

R. D. H.

BEREA'S PRE-FRESHMAN PROGRAM

Nearly 40 per cent. of the students who register in Berea College receive their preparatory training in the allied schools on the Berea campus. The institution, while maintaining high academic standards, lays great emphasis on the preparation of candidates for the college long before they register for the higher courses. It has a program reaching down through the allied schools—the academy, the normal school and the foundation-junior high school—into the grades, and by means of this comprehensive program the work of preparing students for college entrance is thoroughly done.

From the day a student enters one of the grades the selective process begins to operate. By the time the grade work is finished it is possible to determine whether he is capable of mastering the subjects offered in the junior high school. If he measures up to requirements while in the junior high he is passed on into the academy for further preparation. Or he may prefer to register in the normal school.

During three years of intensive work in the academy a careful record is kept not only of his scholastic attainments but of his general conduct about the campus and his attitude towards the Berea program. If he measures up to the required standard of scholarship; if he is willing to work with his hands and thus earn a portion of his expenses; if he is economical in the use of time and money; if he manifests a willingness to be of service to others; if he appears to be worthy of the advantages offered by the college and has the required number of units to his credit, he is admitted to the freshman group provided there is room for him.

The results of this long selective process appear in the earnest group of young people, nearly five hundred in number, who are doing the work which the college requires for a degree. Few of the flippant and unworthy ever reach the freshman year. The training which began in the grades reveals the mettle and the capabilities of the young man or young woman long before the work required for college entrance is completed. If he is willing to line up with the Berea program which eliminates most of the campus frivolities and puts emphasis on scholarship, religious living, manual labor, economy, democracy on the campus, reasonable service to others and the urge to attain, the doors of the college are open to him.

Experience has taught the faculty that it is wise to do a great deal for the prospective college student before he reaches the freshman year. Each separate faculty in the allied schools makes its contribution and registers its approval or disapproval of the work and conduct of the student. After having had this intensive training the student usually does a first-class piece of work when he gets into the college.

The college faculty gives no instruction to students below college rank nor does it supervise the work done in the allied schools, but inasmuch as all the schools are under the same management it is easy to coordinate the work

and make every step count for thorough preparation. Each year nearly two thousand young people register in the allied schools. Many of these do not plan to go through college, but a very considerable number do. Out of this large number the college can select those best qualified to do with credit the work required for degrees. The plan yields results which are quite satisfactory and simplifies the matter of selecting suitable students for the college courses.

JOHN F. SMITH

BEREA COLLEGE

QUOTATIONS

ACADEMIC FREEDOM AT THE UNIVERSITY OF PITTSBURGH[1]

THE dissolution of the Liberal Club and the dismissal of Mr. Woltman are the only incidents bearing on academic freedom which, so far, have issued in overt action by the administration. In the total situation, however, there are other elements which, in our judgment, outweigh these incidents in importance and hold even more sinister possibilities for the future. Accordingly, we shall add a few observations upon the general situation in the university relative to academic freedom, because we regard this as a generating condition from which a series of future evils may arise, unless proper measures are taken to place faculty and administration on a better footing.

It is generally agreed by all the members of the Pittsburgh faculty with whom we have conversed that there exists in the faculty of that institution a wide-spread feeling of insecurity and timidity. Even administrative officers admit that this feeling exists, though they regard it as not justified and attribute it to "hysteria," accompanying the Liberal Club incident. Members of the faculty, however, assert that it is of long standing and was at most merely intensified by occurrences this spring. They state that over a period of several years there has existed the conviction that a teacher must be extremely cautious in taking part in public discussion, especially if his convictions are enlisted on the side of unpopular causes, and that if he does so he jeopardizes his chances of promotion in rank and salary and in the extreme case runs the risk of dismissal. Thus there are allegations that the trouble this year has been accompanied by discrimination in the granting of salary increases to members of the faculty who were prominently concerned.

This feeling of timidity does not extend to utterances before university classes, since it is generally agreed that there is no interference with classroom instruction. It applies rather to public utterances outside the university, and more particularly to the public discussion of controversial, social, and economic questions, such as relations of labor and capital, government regulation of industry, and the domination of government by financial or business interests. It is believed to be particularly dangerous to gain publicity by presenting liberal ideas on such subjects in a manner calculated to secure a popular audience. In respect to controversial questions of this nature the administration of the University is believed to be subject to pressure from interests upon which it is dependent for endowment and appropriations; furthermore, it is believed that the administration is amenable to such pressure in its dealings with the faculty and is not likely to tolerate activities by the faculty which might interfere with the pursuit of funds. Whether this belief is justified or not, there is not the least doubt that it prevails pretty widely in the faculty of the University of Pittsburgh.

* * * * *

The main reason why really friendly relations between faculty and administration are difficult is that at the University of Pittsburgh such relations are not built upon recognized rights of the faculty either as individuals or as a corporate body. As individuals, all teachers are employed upon yearly contracts, instead of with the presumption of permanence. The legal status of teachers is therefore such as to foster a sense of insecurity and of dependence upon the favor of administrative officers, while the administration reserves to itself the privilege of getting rid of teachers without being required to assign a reason. As a corporate body the faculty has little or no part in the government

[1] From the report of the Committee of the American Association of University Professors.

of the university. Apparently the faculty rarely even meets, except for routine matters such as voting degrees. Last spring a petition of twenty-two faculty members for a meeting brought no response from the administration before the close of the academic year, and the Executive Secretary is said to have deplored the effect of this formal request upon the Chancellor's temper. The confidential interview with teachers, one by one, has been substituted for general discussion in a faculty meeting which has a recognized right to be informed and consulted upon questions of policy and important acts of administration.

Both in its dealings with individuals and with the faculty as a whole the administration prefers that relations should be personal rather than legal; it desires acquiescence rather than criticism, and it concedes favors rather than rights. Upon such a foundation true friendliness and cooperation can not be built, for friendship is a relation between equals.

There is no disposition on the part of the faculty at Pittsburgh to deny that the situation of the administration really is difficult. It has adopted a highly ambitious project of expansion, calling for greatly increased endowment; it is dependent for funds partly on the local community and partly on a state government in both of which the influence and peculiar point of view of certain big business and industrial interests seem to be paramount. It is quite possible, therefore, that independence on the part of the administration might cost the University money. We are convinced that this fact, coupled with the determination to carry through its program of rapid development, has induced an attitude of timidity in the administration which is not consistent with a high degree of academic freedom in the University.

So far as this state of affairs depends upon the community in which it is situated, the University is powerless. Nevertheless we believe that certain changes of policy and attitude are within the power of the administration; we believe also that these changes are necessary in the interests of academic freedom:

First, the administration might well be less panic-stricken about the University's name being implicated by the action of an individual or a group. In respect to the publicity which faculty utterances may attract, the administration needs more courage, more willingness to stand public criticism. It is not certain that such a change of attitude would cause monetary losses; in the end it would unquestionably increase the respect in which the University is held.

Second, in its dealings with individual members of the faculty, while continuing to aim at friendly cooperation as an end, the administration needs to abandon a policy which creates the impression that a teacher's public utterances are subject to surveillance and that a so-called friendly interview is in fact the reprimand of a superior officer. Beyond doubt it would greatly aid in this change if the administration were to abandon the yearly contract and appoint its teachers of higher rank with permanent tenure, subject to removal only for cause shown.

Third, the administration urgently needs to legalize its relation with the faculty as a body. Questions of university policy ought to be subject to discussion and criticism by the faculty as a matter of right, and the faculty's support and approval of such policies should be sought. In short, the government of the University should rest upon the recognized right of the faculty to participate and not upon the friendly intentions of the administration.

GEORGE H. SABINE
CARL WITTKE

EDUCATIONAL RESEARCH AND STATISTICS

SCIENCE METHODS AND SUPERSTITION

RELATIVE merits of methods of laboratory instruction and of concomitants of science study have been much discussed. Yet there is little objective evidence that any laboratory work is of value, or that any concomitant is affected by studying science. This study was undertaken to secure evidence on the value of laboratory work in general science and on the effect of studying science on superstition.

Two experimental groups were set up in the

ninth grade of the high school at Potlatch, Idaho. The groups were paired on the basis of IQ, M.A. and school attitude. The mean IQ for the reading group was 102.2, for the laboratory group 101.7. Mental ages were 15–2.8 for the reading group, 15–2 for the laboratory group. All pairs were very evenly matched.

One group, the reading group, was taught from text-books of general science and physical geography. No laboratory work was done, and there were no demonstrations of any sort. A strict text-book and recitation plan was used, with supplementary texts for outside reading. Two periods were used daily, one for recitation and one for unsupervised study.

The other group, called the laboratory group, met two periods daily for laboratory work. The only books used were one manual of physical geography experiments and the pupils' notebooks. General science experiments were first taught by the lecture-demonstration method, then by oral and blackboard directions with the pupils performing the experiments, and in the second semester individual work from the geography manual. Each pupil kept a notebook, and studied his own notebook when occasionally time remained at the end of an experiment. Experiments for study were adapted from physics, chemistry, foods, textiles, biology and geography.

The experimenter was the teacher. The study lasted one school year. Fourteen pairs were finally used to compare results.

To measure the effect of science study on superstition, a test of thirty-two items was devised, mixed at random with eighteen items of common knowledge, in true-false form. Of the superstition items seven dealt with witchcraft, eight with omens, eight with health, four with ghosts and the supernatural and seven with "old saws." It is interesting to note that every false item was declared true at least once, that no person made a perfect score and that the most popular occurred in 84 per cent. of the cases. Sixty-five per cent. professed faith in the ouigaboard; 58 per cent. believed birthmarks to be the result of a shock during pregnancy; 20 per cent. believed spring tonic thins the blood, and one case believed the necessity of shooting witches with silver bullets. The lowest score represented almost half of the items wrong.

The odd-even self-correlation of this test on forty-three cases is $.61 \pm .06$. The correlation with both forms of Dvorak General Science Scale is $.30 \pm .09$, and with one form of Terman Group Test of Mental Ability, $.22 \pm .10$. All correlations are by the Pearson formula. This test is reliable, and does not measure either intelligence or general science to a significant extent. Its validity is assumed on these facts.

The test was administered to 158 cases altogether, over a range of seven grades. The mean scores follow:

Grade	Mean score	Improvement
VI	39.57	
VII	39.30	− .27
VIII	40.52	1.12
IX	43.08	2.56
XI–XII	45.52	2.44

In high school, where science is studied, the excess of points over the preceding years increases somewhat, as well as the mean score increasing. A further comparison was made by measuring the gain of a group of seventh and eighth grade pupils compared with the experimental groups combined. Twenty-seven grade pupils made a mean loss of 1.16 points, while thirty-three ninth graders made a mean gain of 2.42 points. The evidence strongly suggests the value of science in decreasing superstition.

In comparing the value of the reading and laboratory methods, the gains were in every case secured by applying the same tests at the beginning and end of the year. The accompanying table shows the results of instruction.

The results in general science show no significant differences. If the gain is three times its S.D. it is judged significant. The lack of a significant difference is in itself rather significant.

The question arises as to how the experimental groups compare with other classes doing mixed reading and laboratory. Dvorak in standardizing his test found an average yearly gain of 5.39 points. This is exceeded considerably by both groups.

Test	Mean Points Gained	
	Reading	Laboratory
Dvorak Gen. Science Scale S2	9.53	9.78
Dvorak Gen. Science Scale T2	8.46	7.96
Ruch-Popenoe General Science A	20.39	18.11
Ruch-Popenoe General Science B	21.35	20.21
Van Wagenen Reading, Gen. Science A	2.54	5.38
Van Wagenen Reading, Gen. Science B	.07	5.43
Experimenter's Physiography Scale	17.11	12.00
Experimenter's Superstition Test	3.92	1.16

On the physical geography test there is a significant difference favoring the reading section. On superstition there is also a significant difference favoring the reading section.

But on the reading scales the tendency surprisingly is in favor of the laboratory section, but not statistically significant. This test is of comprehension, which might explain the value of the manual in teaching reading. In an effort to check the value of a manual, six physics pupils, six biology pupils and eight non-science pupils were measured for a year's gain. The biology class used no manual. The physics pupils' mean gain was 11.6 points; the biology class lost 3.5 points; the non-science group gained .75 points. The physics scores were uniformly positive; the other groups showed negative and zero gains. The ability of all these pupils was mediocre. These results on so few cases are meaningless except as they support the other experiment. The results do agree.

The study shows little positive evidence that might cause any change in instruction. Some conclusions might safely be drawn, as follows:

(1) There is no important difference in results favoring either reading or laboratory work as a method of teaching science.

(2) Either reading or laboratory work may be omitted entirely without interfering with normal progress.

(3) Superstition decreases as a result of science instruction.

VICTOR C. SMITH

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